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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,774	04/17/2001	Harald Kaufmann	436.0004	4626
25534 7590 07/14/2010 CAHN & SAMUELS LLP 1100 17th STREET NW SUITE 401 WASHINGTON, DC 20036				
EXAMINER				
ZIMMERMAN, JOSHUA D				
ART UNIT		PAPER NUMBER		
2854				
MAIL DATE		DELIVERY MODE		
07/14/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/807,774

Applicant(s)

KAUFMANN, HARALD

Examiner

JOSHUA D. ZIMMERMAN

Art Unit

2854

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-61 is/are pending in the application.
- 4a) Of the above claim(s) 59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-58, 60 and 61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/IC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/08/10 has been entered.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 10/23/1998 and 04/08/1999. It is noted, however, that applicant has not filed a certified copy of the 198 48 863.7 or 199 15 713.8 applications as required by 35 U.S.C. 119(b).

It is noted that notice was given that the priority documents were received. However, upon review of the case file, the priority documents could not be found.

Election/Restrictions

3. Claim 59 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 05/04/2010.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 48 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 48 requires that the transfer adhesive and the reflection ink be applied at the same time. However, claim 43 sets forth that the reflection ink layer and the adhesive layer are applied in separate, sequential steps. It is therefore unclear how the two layers can be applied at the same time if it is required for them to be applied separately. Therefore, prior art could not be applied.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 43-47, 49, 52-54, 60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US 3172942) in view of LaPerre et al. (US 6060157) and Nellessen et al. (US 3420597).

Regarding claims 43 and 61, Berg teaches "a method for applying a reflection

transfer to a substrate, comprising:

- providing a base medium (item 10);
- applying a transfer adhesive (item 18);
- imprinting a plurality of reflection particles onto said base medium (column 4, lines 1-21);
- applying a transfer film on the reflection ink layer (item 19);
- removing said base medium (column 7, lines 17-20);
- applying said transfer adhesive onto a substrate (column 7, lines 11-13);
- adhering the transfer adhesive and reflection ink layer on said substrate by at least one of heat or pressure (column 7, lines 13-17); and
- removing the transfer film from the reflection ink layer (column 7, lines 10-12);
- wherein said reflection ink layer forms a motif (Examiner interprets whatever 'design effects' taught by Berg [column 7, lines 53-59] to be a motif).

Berg fails to teach that the base medium is adhesive-repellent, or that the steps are carried out in the order presented. Essentially, Berg fails to teach that the reflection transfer is printed directly onto the transfer adhesive layer; instead, Berg teaches that the motif is printed in reverse manner by applying the reflection layer to the carrier base, and then the adhesive layer being applied on top of the reflection layer.

LaPerre et al. teach a method of creating a transfer (column 19, lines 4-14; Figure 2) wherein an image layer comprising transparent particles (4) is printed directly onto an adhesive layer (6) on the adhesive-repellent peelable layer (item 13; column 19, lines 15-27). The peelable layer is then peeled away and the transfer is applied directly

to the substrate via the adhesive layer (6) and then the transfer film (item 14) is removed (column 19, lines 4-14). Thus, it is known to print directly onto an adhesive-repellent peelable layer (i.e., a base medium).

Further, the Supreme Court has emphasized the need to account for common sense when considering whether a combination of references would have been obvious. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007). In the instant case, common sense would dictate that printing a motif in plan view, rather than in a reverse manner, would enable one to more easily recognize errors or defects in the motif desired. Thus, the ability to more easily recognize errors or defects would be a predictable result of printing directly onto the adhesive layer on the adhesive-repellent base medium.

Further, it has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. See MPEP §2144.04, IV(c).

Since it has been shown that it is known in the art of transfers to print an image directly onto an adhesive layer on an adhesive-repellent base medium, and the result would be predictable, one having ordinary skill in the art would have been motivated to switch the order of the process steps in the method of Berg in order to allow for the motif to be presented in the correct view to achieve the predictable result of being able to more easily recognize motif defects.

It is further asserted that since the result would be predictable, the transfer adhesive resulting from the proposed modification of Berg would not result in any new or unexpected results.

Berg also fails to teach that the reflective particles are applied with an ink layer.

Nellessen et al. teach a method of applying a reflective ink to a substrate comprising reflective particles (title, figures) comprising:

including the reflection particles in an ink before applying to the substrate (column 3, lines 35-40);

screen printing the ink onto the substrate (column 5, lines 55-57); and

drying the applied ink film in order to expose the particles (Figure 2).

The method employed by Nellessen et al. improves upon the multi-step process employed by Berg by reducing the number of steps involved (column 2, lines 30-40).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to further modify the method of Berg by using the reflective ink application method of Nellessen et al. in order to reduce the number of steps involved in the manufacturing process.

Regarding the remaining limitation that the motif be imprinted with a correct side in plan view, the modification of Berg in accordance with LaPerre et al. meets this limitation because the motif will be put directly on the transfer adhesive.

Regarding claim 44, LaPerre et al. further teach "wherein the adhesive-repellent base medium comprises a paper or plastic film coated with a silicone or wax (column 19, lines 17-22)."

Regarding claim 45, Berg further teaches "wherein the transfer adhesive comprises a heat-sensitive or pressure sensitive adhesive (column 7, lines 13-17)."

Regarding claim 46, Berg further teaches "wherein the transfer adhesive comprises a white adhesive agent (column 7, lines 29-33. Examiner interprets the optional pigments to include white pigments)."

Regarding claim 47, Nellessen et al. further teach "drying the reflection ink layer such that the plurality of reflection particles protrude above a surface of the reflection ink layer (Figure 2)."

Regarding claim 49, Berg further teaches "wherein the motif is a multi-colored motif comprising at least two parts not connected to each other (column 7, lines 55-59. at least one of the strata would not be connected to the particles)."

Regarding claim 51, Berg, as modified, teaches all that is claimed, as in claim 43 above, but fails to teach that "the plurality of reflection particles are in the shape of needles having a longitudinal extension of from 10 to 110 μm ," instead teaching that the reflection particles are spherical. However, Examiner takes Official Notice that, at the time of the invention, needle-like particles with a length in the 10-110 μm range were known equivalents for spherical particles in use as reflective particles. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to substitute needles having a longitudinal extension of from 10 to 110 μm for the spherical particles in the modified method of Berg because they were known equivalents.

Regarding claim 52, Berg discloses that "the transfer adhesive is imprinted in a layer having a thickness from 100 to 300 μm (column 6, line 67)." Examiner notes that

Art Unit: 2854

Berg discloses that the thickness of the transfer adhesive layer is applied such that the dried film has a thickness of 3-mils (76 μm). However, since applicant's layer thickness is measured wet, before drying (see embodiment 1), Examiner asserts that upon drying, the range of thickness of the adhesive layer as claimed would overlap the 76 μm disclosed by Berg.

Regarding claim 53, in the modified method of Berg, there will be a lag time between when the adhesive is applied and when the ink layer is applied. Inherently, during this lag time, the transfer adhesive will dry.

Regarding claim 54, LaPerre et al. further teach "wherein the transfer film (item 14) comprises paper (item 16; column 20, line 1) provided with an adhesive (item 18)."

Regarding claim 60, Berg teaches a method for applying a reflection transfer to a substrate, consisting of, in sequence:

- providing a base medium (item 10);
- applying a transfer adhesive (item 18);
- imprinting a plurality of reflection particles onto said base medium (column 4, lines 1-21);
- applying a transfer film on the reflection ink layer (item 19);
- removing said base medium (column 7, lines 17-20);
- applying said transfer adhesive onto a substrate (column 7, lines 11-13);
- adhering the transfer adhesive and reflection ink layer on said substrate by at least one of heat or pressure (column 7, lines 13-17); and
- removing the transfer film from the reflection ink layer (column 7, lines 10-12);

wherein said reflection ink layer forms a motif (Examiner interprets whatever 'design effects' taught by Berg [column 7, lines 53-59] to be a motif).

Berg fails to teach that the base medium is adhesive-repellent, or that the steps are carried out in the order presented. Essentially, Berg fails to teach that the reflection transfer is printed directly onto the transfer adhesive layer; instead, Berg teaches that the motif is printed in reverse manner by applying the reflection layer to the carrier base, and then the adhesive layer being applied on top of the reflection layer.

LaPerre et al. teach a method of creating a transfer (column 19, lines 4-14; Figure 2) wherein an image layer comprising transparent particles (4) is printed directly onto an adhesive layer (6) on the adhesive-repellent peelable layer (item 13; column 19, lines 15-27). The peelable layer is then peeled away and the transfer is applied directly to the substrate via the adhesive layer (6) and then the transfer film (item 14) is removed (column 19, lines 4-14). Thus, it is known to print directly onto an adhesive-repellent peelable layer (i.e., a base medium).

Further, the Supreme Court has emphasized the need to account for common sense when considering whether a combination of references would have been obvious. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007). In the instant case, common sense would dictate that printing a motif in plan view, rather than in a reverse manner, would enable one to more easily recognize errors or defects in the motif desired. Thus, the ability to more easily recognize errors or defects would be a predictable result of printing directly onto the adhesive layer on the adhesive-repellent base medium.

Further, it has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. See MPEP §2144.04, IV(c).

Since it has been shown that it is known in the art of transfers to print an image directly onto an adhesive layer on an adhesive-repellent base medium, and the result would be predictable, one having ordinary skill in the art would have been motivated to switch the order of the process steps in the method of Berg in order to allow for the motif to be presented in the correct view to achieve the predictable result of being able to more easily recognize motif defects.

It is further asserted that since the result would be predictable, the transfer adhesive resulting from the proposed modification of Berg would not result in any new or unexpected results.

Berg also fails to teach that the reflective particles are applied with an ink layer.

Nellessen et al. teach a method of applying a reflective ink to a substrate comprising reflective particles (title, figures) comprising:

including the reflection particles in an ink before applying to the substrate (column 3, lines 35-40);

screen printing the ink onto the substrate (column 5, lines 55-57); and
drying the applied ink film in order to expose the particles (Figure 2).

The method employed by Nellessen et al. improves upon the multi-step process employed by Berg by reducing the number of steps involved (column 2, lines 30-40).

Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to further modify the method of Berg by using the reflective ink application method of Nellessen et al. in order to reduce the number of steps involved in the manufacturing process.

Regarding the remaining limitation that the motif be imprinted with a correct side in plan view, the modification of Berg in accordance with LaPerre et al. meets this limitation because the motif will be put directly on the transfer adhesive.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US 3172942) in view of LaPerre et al. (US 6060157) and Nellessen et al. (US 3420597), as applied to claim 43 above, further in view of Applicant's Admitted Prior Art (AAPA).

Regarding claim 50, Berg, as modified, teaches all that is claimed, as applied to claim 43 above, but fails to further teach "applying said transfer adhesive via a screen print process." However, AAPA teaches using a screen print process in order to achieve a transfer system that can be manufactured in a simple manner, at a reasonable cost and in large numbers (page 3, lines 9-28 of applicant's specification). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use a screen print process in the modified method of Berg in order to achieve a transfer system that can be manufactured in a simple manner, at a reasonable cost, and in large numbers.

8. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berg (US 3172942) in view of LaPerre et al. (US 6060157) and Nellesen et al. (US 3420597), as applied to claim 43 above, further in view of LaPerre (US 5620775), hereinafter '775.

Regarding claim 51, Berg, as modified, discloses all that is claimed, as in claim 43 above, including that the reflection particles are spherical (column 4, lines 55-62). However, Berg fails to disclose that the particles are "in the form of chips or needles and have a longitudinal extension of from 10 to 110 μm ." However, '775 discloses (Figure 3) including irregularly shaped glass particles (items 2) having the claimed dimensions (column 10, lines 50-58) in an adhesive layer (item 3) of a retroreflective article which results in desirable properties, including low gloss, accurate color transmission, good abrasion resistance, etc. (column 1, lines 24-29). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to include the particles of '775 in the reflection transfer of Berg in order to achieve a desirable property, such as low gloss, accurate color transmission, and/or good abrasion resistance.

9. Claims 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berg in view of LaPerre et al. and Nellesen et al., as applied to claim 43 above, further in view of LaPerre (US 5620775), hereinafter '775.

Regarding claim 55, Berg, as modified, teaches all that is claimed, as in claim 43 above, except "imprinting a non-reflective intermediate ink layer on the transfer

Art Unit: 2854

adhesive; and

imprinting the reflection ink layer on the non-reflective intermediate ink layer (layer 12)."

'775 teaches including additional colored polymeric ink layers on the transfer adhesive in order to achieve a graphic image in the reflection transfer (column 14, lines 47-52). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to include an additional colored polymeric ink layer in the modified method of Berg in order to achieve a graphic image in the transfer.

Regarding 56, '775 further discloses "wherein the intermediate ink layer comprises white ink (column 15, lines 4-10)." Since '775 teaches that the graphic could encompass a broad range of color, Examiner asserts that the range disclosed by '775 includes white.

Regarding claim 57, Berg further discloses "wherein the transfer adhesive is transparent or translucent (this must inherently be true for the structure to function as a retroreflective article)."

Regarding claim 58, '775 further discloses "wherein the intermediate ink layer forms a motif (column 14, line 47)."

Response to Amendment

10. The declaration under 37 CFR 1.132 filed 03/08/2010 is insufficient to overcome the obviousness rejection of the claims based, in part, on Berg as set forth in the last

Office action because a new grounds of rejection has been presented.

Response to Arguments

11. Applicant's arguments with respect to all the have been considered but are moot in view of the new ground(s) of rejection.

It is noted, however, that the arguments presented by applicant's regarding the use of common sense in the rejection are not relevant. Applicant's assume that an 'obvious to try' rationale is being used. However, an 'obvious to try' rationale has not been used in the rejection.

It is further noted that the related patent grants from foreign patent offices have been fully considered as secondary considerations; however, the case of obviousness, as made above according to U.S. standards of patentability, is still deemed to outweigh the proposed secondary considerations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA D. ZIMMERMAN whose telephone number is (571)272-2749. The examiner can normally be reached on M-F 9:30A - 6:00P,

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

/Joshua D Zimmerman/
Examiner, Art Unit 2854

59. (NEW) A method for applying a reflection transfer to a substrate, comprising, in sequence:

imprinting a colored transfer adhesive comprising a plurality of reflection particles on an adhesive-repellent base medium to form a transfer comprising a motif that is imprinted with a correct side in a plan view; drying the transfer; applying a transfer film on the dried transfer;

removing said adhesive-repellent base medium to expose a layer of the transfer adhesive;

applying said exposed layer of the transfer adhesive onto a substrate; adhering the colored transfer adhesive on said substrate; and removing the transfer film.